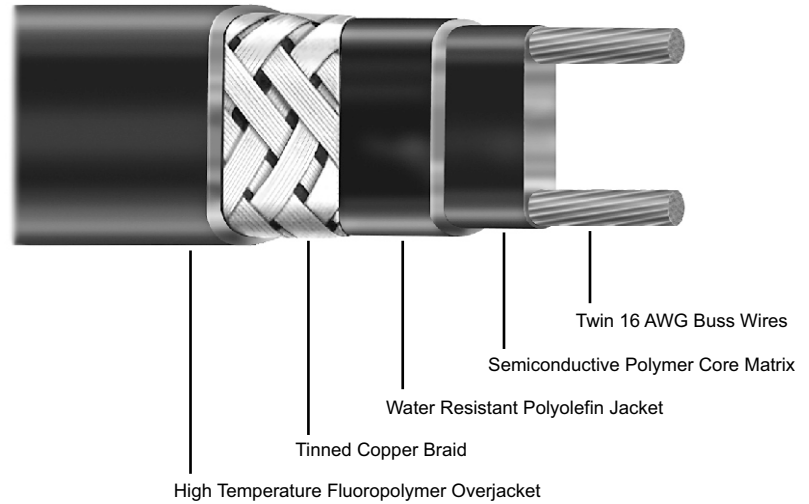
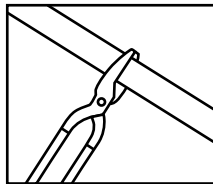


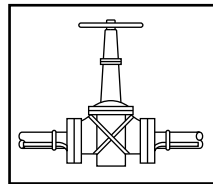
HSRM, Div. 1 High Temperature Self-Regulating Heating Cable



- Division 1 Hazardous Locations
- Self-Regulating, Energy Efficient
- 16 AWG Buss Wire
- Circuit Lengths to 780 Feet
- Process Temperature Maintenance to 302 °F (150 °C)
- Maximum Continuous Exposure Temperature (Power Off) 420°F (215°C)
- Industrial Process Applications
- Industrial Freeze Protection Applications
- Steam Cleanable on Process Equipment Up to 300 PSIG
- 5, 8, 10, 15 and 20 Watts per Foot
- 120 and 208-277 Volts Available From Stock
- For Use on Metallic Pipes Only
- Approximate Size 1/2" x 1/4"
- Minimum Bend Radius is 1-1/2"



Cut to Any Length in Field

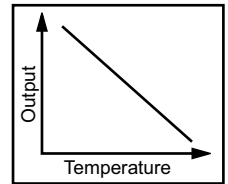


Can be Single Overlapped

Maintains
302 °F

Withstands
420 °F

High Temperature



Self Regulating

Description:

Trasor HSRM self-regulating heating cable provides safe, reliable heat tracing for process temperature maintenance and freeze protection of pipes, valves, tanks and similar applications. Constructed of industrial grade 16 AWG buss wire with metal braid and optional overjacketing, HSRM ensures operating integrity in most hostile industrial environments. The 420 °F (215 °C) maximum exposure temperature rating allows steam cleaning of process equipment with up to 300 psig steam.

Features:

- Industrial Grade, 16 gauge buss wire has higher current capacity, allowing longer circuit lengths up to 780 feet.
- Superior matrix to buss wire bonding ensures overall operating integrity and performance.
- High output, 20 W/Ft. heating cable.
- Energy efficient, self-regulating HSRM uses less energy when less heat is required.
- Easy to install, HSRM can be cut to length in field.
- Field splices can be performed easily in

minutes.

- HSRM features lower installed cost than steam tracing, less maintenance expense, and less downtime.
- HSRM can be single overlapped without burnout.
- Because HSRM is self-regulating, overtemperature conditions are virtually impossible.
- Trasor termination, splice, tee and end seal kits reduce installation time.

Applications:

- Process Temperature Maintenance
- Hydrocarbon and Chemical Product Piping
- Freeze Protection of Periodically Steam-Cleaned Pipes
- Fluid Flow and Viscosity Maintenance

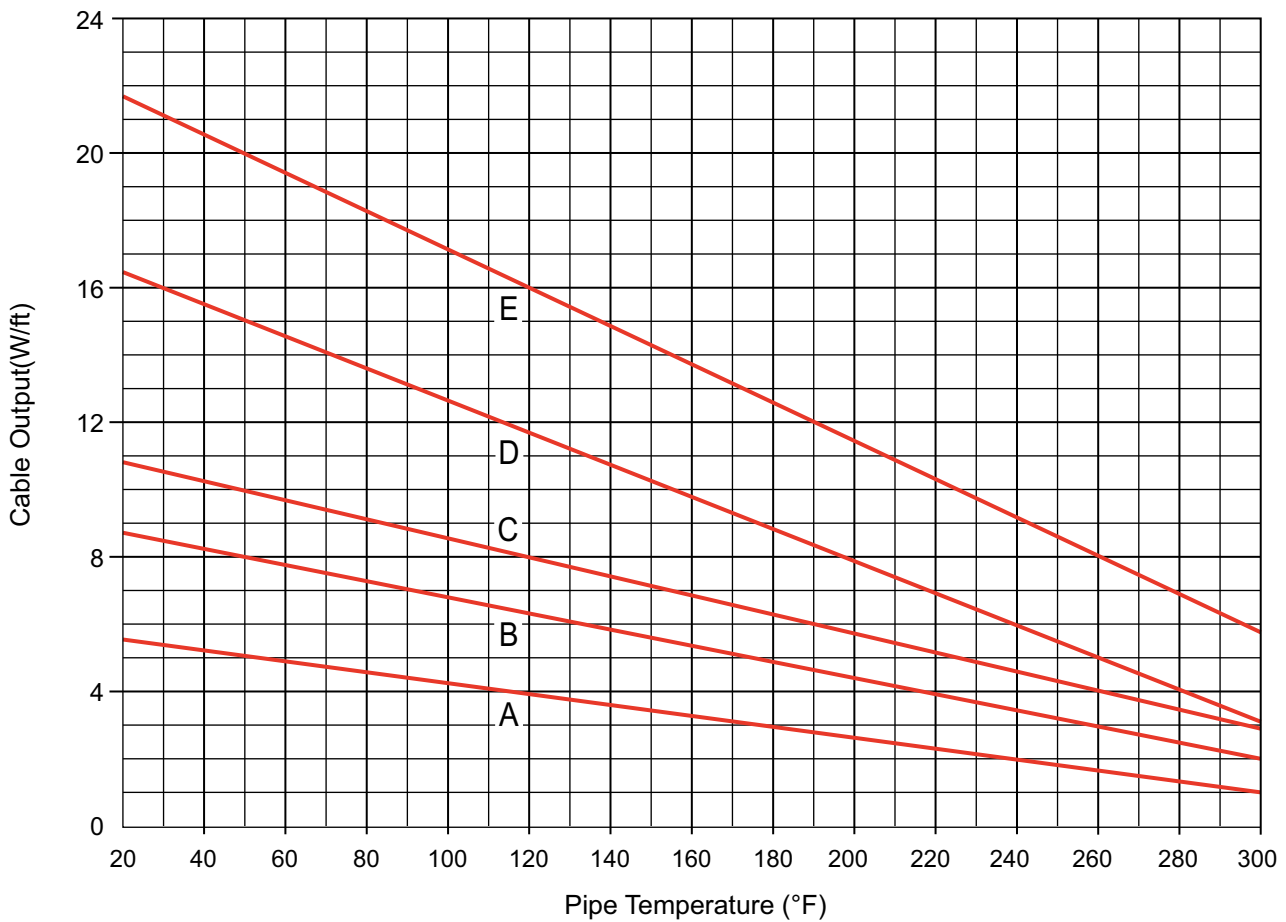
Note: Due to the nature of Division I hazardous location applications consultation with a factory representative is required.

HSRM

Thermal Output Ratings On Insulated Metal Pipe:

Use the following graph to select the heating cable that will produce the desired wattage based on the operating temperature. Apply output multipliers as needed for alternative voltages as noted in table 2.

Example: For an application that required at least 6 watts per foot to maintain 150 °F with an operation voltage of 240 V, you could select output curve "B" @ 7 watts per foot. This is cable model number HSRM8. However, if your operation voltage was 208 V, you would select output curve "C". This is cable model number HSRM10 @ 8.4 watts per foot (10 x 0.83 = 8.7 watts per foot).



Conversions:

Watts/Meter = Watts/Foot x 3.28

°C = (°F - 32) / 1.8

Output Curve	W/Ft @50°F	Model Number
A	5 W/Ft	HSRM5
B	8 W/Ft	HSRM8
C	10 W/Ft	HSRM10
D	15 W/Ft	HSRM15
E	20 W/Ft	HSRM20

Circuit Breaker Selection and Maximum Circuit Length:

Circuit protection depends on the cable size being used and the start-up temperature. The National Electric Code (NEC 2002) requires the use of ground fault protection breakers for heating cable. A 30mA trip is recommended to avoid nuisance tripping. The following chart shows the maximum circuit length for a given breaker rating, at different start-up temperatures.

These recommendations are based on inrush currents that occur when heating cable is initially energized in a cold environment or after a plant shut down. Currents will be much less at normal operating temperatures.

Table 1

Watts/Ft.	Start-up Temp.	Maximum Circuit Length (Feet) vs. Breaker Size (Amps)									
		120 Volts					240 Volts				
		15 A	20 A	30 A	40 A	50 A	15 A	20 A	30 A	40 A	50 A
5	50 °F	180	240	360	375	NR	360	480	720	750	NR
	0 °F	165	220	330	375	NR	325	430	645	750	NR
	-20 °F	155	210	310	375	NR	310	415	620	750	NR
8	50 °F	145	190	285	325	NR	285	380	575	650	NR
	0 °F	135	175	265	325	NR	255	345	520	650	NR
	-20 °F	130	165	250	325	NR	245	335	490	650	NR
10	50 °F	95	125	190	250	NR	190	255	385	490	NR
	0 °F	90	110	175	250	NR	165	225	345	490	NR
	-20 °F	85	100	170	245	250	155	215	330	470	NR
15	50 °F	70	95	145	190	210	145	190	290	385	420
	0 °F	65	85	125	165	210	120	175	270	360	420
	-20 °F	60	80	120	150	210	115	165	260	340	420
20	50 °F	60	75	115	155	160	115	155	230	305	350
	0 °F	50	65	105	140	160	100	135	200	270	350
	-20 °F	45	65	100	135	160	90	130	195	255	335

Thermal magnetic circuit breakers are recommended since magnetic breakers could "nuisance trip" at low temperature. NR = Not Required. Maximum circuit length has been reached in a smaller breaker size.

Cable Specifications and Ratings:

Table 2

Model Number	Operation Voltages (Vac)	Cable Output (W/ft) @ 50 °F					Maximum Circuit Length (ft)	T-Rating
		Standard Voltages		Alt. Voltages (Output Multipliers)				
		120 V	240 V	208 V	220 V	277 V		
HSRM5-1CT	120	5	-	-	-	-	375	T3C
HSRM5-2CT	208-277	-	5	3.9 (0.77)	4.3 (0.85)	6.5 (1.23)	750	T3C
HSRM8-1CT	120	8	-	-	-	-	325	T3C
HSRM8-2CT	208-277	-	8	6.4 (0.80)	6.9 (0.86)	10.2 (1.22)	650	T3C
HSRM10-1CT	120	10	-	-	-	-	250	T3A
HSRM10-2CT	208-277	-	10	8.3 (0.83)	8.8 (0.88)	12.5 (1.20)	490	T3A
HSRM15-1CT	120	15	-	-	-	-	210	T2C
HSRM15-2CT	208-277	-	15	12.8 (0.85)	13.5 (0.90)	18.5 (1.19)	420	T2C
HSRM20-1CT	120	20	-	-	-	-	160	T2C
HSRM20-2CT	208-277	-	20	17.6 (0.88)	18.4 (0.92)	24.4 (1.19)	350	T2C

- ① Use multiplier to adjust cable output from output graph at temperatures other than 50 °F.
- ② See Table 1 for maximum circuit lengths by start-up temperature and breaker size.
- ③ T-Rating codes define the maximum surface temperature that the equipment will reach. Used in hazardous areas. Reference National Electric Code.

HSRM

Ordering Information:

HSRM = Self-Regulating, High Temperature Heating Cable HSRM - CT

Power Rating

- 5 = 5 Watts/ft
- 8 = 8 Watts/ft
- 10 = 10 Watts/ft
- 15 = 15 Watts/ft
- 20 = 20 Watts/ft

Voltage Rating

- 1 = 120 V
- 2 = 208-277 V

Braid

CT = Tinned copper metallic braid for ground path fluoropolymer corrosion resistant overjacket. Specifically tested for Division I environments.

Note: Due to the nature of Division I hazardous location applications consultation with a factory representative is required.

To Order: Specify length, model number, and installation accessories.
Example: HSRM8-2CT, 8 W/ft Heating cable @ 240 V

Cable Weight/1000 Ft. (Lbs)	
HSRM	80

Accessories:

Trasor has a complete line of accessories specifically designed for use with HSRM cable. Use only Trasor accessories to ensure the performance of the heat trace system.

Table 3

Accessory	Part Number	Description
Thermostat	TXL-L1S TXR-L2S	NEMA 7, Ambient Sensing Thermostat NEMA 7, Line Sensing Thermostat
Connection Kits	HL-PC HL-S HL-T HL-ES	Power connection kit Splice kit Tee kit End seal kit
Pipe Straps	PS-1 PS-3 PS-6 PS-14 PS-18	Pipe strap to mount power connection box to pipe, 1/2 - 3/4" pipes Pipe strap to mount power connection box to pipe, 1 - 3" pipes Pipe strap to mount power connection box to pipe, 3 - 6" pipes Pipe strap to mount power connection box to pipe, 6 - 14" pipes Pipe strap to mount power connection box to pipe, 14 - 18" pipes
Fiberglass Tapes	FGT-66-S FGT-66 FGT-180	Fiberglass tape with silicone adhesive, 66' roll x 1/2". Ideal for freezing installation temperatures and stainless steel pipes. Fiberglass tape with rubber adhesive, 66' roll x 1/2" Fiberglass tape with rubber adhesive, 180' roll x 3/4"
Aluminum Tapes	HTF-150-3	Aluminum tape to enhance heat transfer, 150 foot roll. Apply over cable along entire length of circuit.
Caution Labels	EHTL-5	"Electric Heat Tracing" caution labels, 5 per package. Install every 20 feet.